

**Abstract of the Disclosure****ADAPTIVE READER-WRITER LOCK**

A method and computer system for dynamically selecting an optimal lock mode in a multiprocessor environment. The method determines a quantity of read-side and write-side acquisitions, and evaluates the data to determine an optimal lock mode for efficiently operating the computer system while maintaining reduced overhead. The method incorporates data received from the individual units within a central processing system, the quantity of write-side acquisitions in the system, and data which has been subject to secondary measures, such as formatives of digital filters. The data subject to secondary measures includes, but is not limited to, a quantity of read-side acquisitions, a quantity of write-side acquisitions, and a quantity of read-hold durations. Based upon the individual unit data and the system-wide data, including the secondary measures, the operating system may select the most efficient mode of operation from among the locking modes available. Accordingly, efficiency of a computer system may be enhanced with the ability to selectively choose an optimal locking mode based upon selected and calculated parameters.